

AMENDMENTS TO THE CLAIMS

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1. (Current Amended) ~~A discharge lamp~~ An irradiation apparatus for photodynamic therapy comprising,

a discharge lamp which radiates a light of a wavelength suitable to the wavelength range of absorption of a photosensitizer having a relatively large absorption coefficient within the range of the wavelengths of 600nm-800nm, and has a function to emit light having the wavelength region of the main absorption within the range of the wavelengths of 600nm-800nm,

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said discharge lamp is filled with 0.1 $\mu\text{mol}/\text{cm}^3$ or more of ~~any~~ at least one selected from the group consisting of lithium (Li), sodium (Na), rubidium (Rb), ~~or~~ and potassium (K) as an emitting element, and

further filled with at least one ~~or more of rare gases~~ rare gas selected from the group consisting of neon (Ne), argon (Ar), krypton (Kr) and xenon (Xe), and

a lighting system capable of applying a light radiated from the discharge lamp to a photosensitizer having a relatively large absorption coefficient within the range of the wavelengths of 600 nm - 800 nm.

2. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy of Claim 1, wherein lithium (Li) is filled as the emitting element for radiating the lights of 600nm-640nm, and 660nm-720nm of the wavelength region of the main absorption.

3. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy of Claim 1, wherein sodium (Na) is filled as the emitting element for radiating the light of 600nm-640nm of the wavelength region of the main absorption.

4. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy of Claim 1, wherein rubidium (Rb) is filled as the emitting element for radiating the light of 755nm-800nm of the wavelength region of the main absorption.

5. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy of Claim 1, wherein potassium (K) is filled as the emitting element for radiating the light of 760nm-800nm of the wavelength region of the main absorption.

6. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy of Claim 1, wherein at least two ~~or more~~ elements selected from the group consisting of lithium (Li), sodium (Na), rubidium (Rb) and potassium (K) are filled as the emitting elements.

7. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy of Claim 1, wherein mercury (Hg) is further filled for increasing line in the emission spectrum of said lithium (Li), sodium (Na), rubidium (Rb), and potassium (K).

8. (Currently Amended) ~~A discharge lamp~~ An irradiation apparatus for photodynamic therapy or photodynamic diagnosis comprising,

all cont.
~~a discharge lamp which radiates a light of a wavelength suitable to the wavelength range of absorption of a photosensitizer having a relatively large absorption coefficient within the range of the wavelength of 600nm-800nm, and a light of a wavelength suitable to a photosensitizer, which absorbs light within the range of the wavelength of 400nm-440nm, and emits fluorescence, and has a function to emit light having the wavelength region of the main absorption within the range of the wavelength of 600nm-800nm and also emit light having the wavelength region of the main absorption within the range of the wavelength of 400nm-440nm,~~

~~said discharge lamp is filled with 0.1 $\mu\text{mol}/\text{cm}^3$ or more of any at least one selected from the group consisting of lithium (Li), sodium (Na), rubidium (Rb), or and potassium (K), and 0.1 $\mu\text{mol}/\text{cm}^3$ or more of mercury (Hg) as an emitting element, and~~

~~further filled with at least one or more rare gases gas selected from the group consisting of neon (Ne), argon (Ar), krypton (Kr) and xenon (Xe), and~~

~~a means for selecting a wavelength which transmits selectively a light of a wavelength suitable to the wavelength range of absorption of a photosensitizer having a relatively large absorption coefficient within the range of the wavelength of 600nm-800nm, and a light of a wavelength suitable to a photosensitizer, which absorbs light within the range of the wavelength of 400nm-440nm, and emits fluorescence, and~~

~~a lighting system capable of applying a light radiated from the discharge lamp to the photosensitizers.~~

9. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy or photodynamic diagnosis of Claim 8, wherein lithium (Li) is filled as the emitting element for radiating the lights of 600nm-640nm, and 660nm-800nm of the wavelength region of the main absorption.

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10. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy or photodynamic diagnosis of Claim 8, wherein sodium (Na) is filled as the emitting element for radiating the light of 600nm-700nm of the wavelength region of the main absorption.

11. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy or photodynamic diagnosis of Claim 8, wherein rubidium (Rb) is filled as the emitting element for radiating the light of 755nm-800nm of the wavelength region of the main absorption.

12. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy or photodynamic diagnosis of Claim 8, wherein potassium (K) is filled as the emitting element for radiating the light of 760nm-800nm of the wavelength region of the main absorption.

13. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy or photodynamic diagnosis of Claim 8, wherein at least two ~~kinds or more~~ selected from the group consisting of lithium (Li), sodium (Na), rubidium (Rb) and potassium (K) are filled as the emitting elements.

14. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy of Claim 1, wherein halogen is also filled into said discharge lamp.

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cont 15. (Currently Amended) The ~~discharge lamp~~ irradiation apparatus for photodynamic therapy or photodynamic diagnosis of Claim 8, wherein halogen is also filled into said discharge lamp

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as an emitting element $0.1 \mu\text{mol}/\text{cm}^3$ or more of at least one metal selected from the group consisting of lithium (Li), sodium (Na), rubidium (Rb) and potassium (K); and
at least one rare gas selected from the group consisting of neon (Ne), argon (Ar),
krypton (Kr) and xenon (Xe).

17. (New) The discharge lamp of Claim 16, further containing as an emitting element $0.1 \mu\text{mol}/\text{cm}^3$ or more of mercury (Hg).

18. (New) A method of making an irradiation apparatus, the method comprising filling a discharge lamp with
 $0.1 \mu\text{mol}/\text{cm}^3$ at least one selected from the group consisting of lithium (Li), sodium (Na), rubidium (Rb), and potassium (K), and
at least one rare gas selected from the group consisting of neon (Ne), argon (Ar), krypton (Kr) and xenon (Xe); and
producing the irradiation apparatus of Claim 1.

19. (New) A method of making an irradiation apparatus, the method comprising filling a discharge lamp with

0.1 $\mu\text{mol}/\text{cm}^3$ at least one selected from the group consisting of lithium (Li), sodium (Na), rubidium (Rb), and potassium (K),

0.1 $\mu\text{mol}/\text{cm}^3$ or more of mercury (Hg), and

at least one rare gas selected from the group consisting of neon (Ne), argon (Ar), krypton (Kr) and xenon (Xe); and

producing the irradiation apparatus of Claim 8.

20. (New) A method of making a discharge lamp capable of radiating light having a wavelength in the range of 600nm-800nm, the method comprising

filling a discharge lamp with

0.1 $\mu\text{mol}/\text{cm}^3$ at least one metal selected from the group consisting of lithium (Li), sodium (Na), rubidium (Rb), and potassium (K), and

at least one rare gas selected from the group consisting of neon (Ne), argon (Ar), krypton (Kr) and xenon (Xe); and

producing the discharge lamp of Claim 16.

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